ABSTRACT

In a label switching router placed at one end of an LSP set by using CRLDP, a bidirectional LSP setup TLV preparing portion prepares a bidirectional LSP setup TLV included in a bidirectional setup label request message transmitted in an up direction to a label switching router placed at the other end of the LSP based on an external bidirectional LSP setup request accepted by a bidirectional LSP setup accepting portion, a bidirectional LSP setup TLV analyzer analyzes the bidirectional LSP setup TLV in the message when the message is received from the label switching router at the other end, a bidirectional LSP processor performs an LSP setup request in a down direction as opposed to the up direction based on the analyzed result by the bidirectional LSP setup TLV analyzer, and an explicit route preparing portion prepares an explicit route on which a router to be relayed in the down direction is prescribed, based on an explicit route preparing request from the bidirectional LSP processor and notifies the prepared route to the bidirectional LSP processor.